



2394 Pr seq list.ST25.txt
SEQUENCE LISTING

<110> Alcon, Inc.
Yanni, John M.
Gamache, Daniel A.
Miller, Steven T.

<120> Treatment of Dry Eye in Postmenopausal Women by Restoring 15-lipoxygenase Activity to Ocular Surface Cells

<130> 2394

<160> 10

<170> PatentIn version 3.1

(1) GENERAL INFORMATION:
(iii) NUMBER OF SEQUENCES: 10

<210> INFORMATION FOR SEQ ID NO:1:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2671 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

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tgaactattt taaataaaat attggcaaaa g 2671

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<210> INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 661 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS:
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

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Met Gly Leu Tyr Arg Ile Arg Val Ser Thr Gly Ala Ser Leu Tyr Ala
1           5           10           15

Gly Ser Asn Asn Gln Val Gln Leu Trp Leu Val Gly Gln His Gly Glu
20           25           30

Ala Ala Leu Gly Lys Arg Leu Trp Pro Ala Arg Gly Glu Thr Glu Leu
35           40           45

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Lys Val Glu Val Pro Glu Tyr Leu Gly Pro Leu Leu Phe Val Lys Leu
50 55 60

Arg Lys Arg His Leu Leu Lys Asp Asp Ala Trp Phe Cys Asn Trp Ile
65 70 75 80

Ser Val Gln Gly Pro Gly Ala Gly Asp Glu Val Arg Phe Pro Cys Tyr
85 90 95

Arg Trp Val Glu Gly Asn Gly Val Leu Ser Leu Pro Glu Gly Thr Gly
100 105 110

Arg Thr Val Gly Glu Asp Pro Gln Gly Leu Phe Gln Lys His Arg Glu
115 120 125

Glu Glu Leu Glu Glu Arg Arg Lys Leu Tyr Arg Trp Gly Asn Trp Lys
130 135 140

Asp Gly Leu Ile Leu Asn Met Ala Gly Ala Lys Leu Tyr Asp Leu Pro
145 150 155 160

Val Asp Glu Arg Phe Leu Glu Asp Lys Arg Val Asp Phe Glu Val Ser
165 170 175

Leu Ala Lys Gly Leu Ala Asp Leu Ala Ile Lys Asp Ser Leu Asn Val
180 185 190

Leu Thr Cys Trp Lys Asp Leu Asp Asp Phe Asn Arg Ile Phe Trp Cys
195 200 205

Gly Gln Ser Lys Leu Ala Glu Arg Val Arg Asp Ser Trp Lys Glu Asp
210 215 220

Ala Leu Phe Gly Tyr Gln Phe Leu Asn Gly Ala Asn Pro Val Val Leu
225 230 235 240

Arg Arg Ser Ala His Leu Pro Ala Arg Leu Val Phe Pro Pro Gly Met
245 250 255

Glu Glu Leu Gln Ala Gln Leu Glu Lys Glu Leu Glu Gly Gly Thr Leu
260 265 270

Phe Glu Ala Asp Phe Ser Leu Leu Asp Gly Ile Lys Ala Asn Val Ile
275 280 285

Leu Cys Ser Gln Gln His Leu Ala Ala Pro Leu Val Met Leu Lys Leu
290 295 300

Gln Pro Asp Gly Lys Leu Leu Pro Met Val Ile Gln Leu Gln Leu Pro
305 310 315 320

Arg Thr Gly Ser Pro Pro Pro Pro Leu Phe Leu Pro Thr Asp Pro Pro

Met Ala Trp Leu Leu Ala Lys Cys Trp Val Arg Ser Ser Asp Phe Gln
340 345 350

Leu His Glu Leu Gln Ser His Leu Leu Arg Gly His Leu Met Ala Glu
355 360 365

Val Ile Val Val Ala Thr Met Arg Cys Leu Pro Ser Ile His Pro Ile
370 375 380

Phe Lys Leu Ile Ile Pro His Leu Arg Tyr Thr Leu Glu Ile Asn Val
385 390 395 400

Arg Ala Arg Thr Gly Leu Val Ser Asp Met Gly Ile Phe Asp Gln Ile
405 410 415

Met Ser Thr Gly Gly Gly Gly His Val Gln Leu Leu Lys Gln Ala Gly
420 425 430

Ala Phe Leu Thr Tyr Ser Ser Phe Cys Pro Pro Asp Asp Leu Ala Asp
435 440 445

Arg Gly Leu Leu Gly Val Lys Ser Ser Phe Tyr Ala Gln Asp Ala Leu
450 455 460

Arg Leu Trp Glu Ile Ile Tyr Arg Tyr Val Glu Gly Ile Val Ser Leu
465 470 475 480

His Tyr Lys Thr Asp Val Ala Val Lys Asp Asp Pro Glu Leu Gln Thr
485 490 495

Trp Cys Arg Glu Ile Thr Glu Ile Gly Leu Gln Gly Ala Gln Asp Arg
500 505 510

Gly Phe Pro Val Ser Leu Gln Ala Arg Asp Gln Val Cys His Phe Val
515 520 525

Thr Met Cys Ile Phe Thr Cys Thr Gly Gln His Ala Ser Val His Leu
530 535 540

Gly Gln Leu Asp Trp Tyr Ser Trp Val Pro Asn Ala Pro Cys Thr Met
545 550 555 560

Arg Leu Pro Pro Pro Thr Thr Lys Asp Ala Thr Leu Glu Thr Val Met
565 570 575

Ala Thr Leu Pro Asn Phe His Gln Ala Ser Leu Gln Met Ser Ile Thr
580 585 590

Trp Gln Leu Gly Arg Arg Gln Pro Val Met Val Ala Val Gly Gln His
595 600 605

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Glu Glu Glu Tyr Phe Ser Gly Pro Glu Pro Lys Ala Val Leu Lys Lys
610 615 620

Phe Arg Glu Glu Leu Ala Ala Leu Asp Lys Glu Ile Glu Ile Arg Asn
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Ala Lys Leu Asp Met Pro Tyr Glu Tyr Leu Arg Pro Ser Val Val Glu
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Asn Ser Val Ala Ile
660

<210> INFORMATION FOR SEQ ID NO:3:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3224 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

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<210> INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 677 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

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 Gly Thr Trp Asp Lys Val Ser Val Ser Ile Val Gly Thr His Gly Glu
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 Ser Pro Leu Val Pro Leu Asp His Leu Gly Lys Glu Phe Ser Ala Gly
 35 40 45
 Ala Glu Glu Asp Phe Glu Val Thr Leu Pro Gln Asp Val Gly Thr Val
 50 55 60
 Leu Met Leu Arg Val His Lys Ala Pro Pro Glu Val Ser Leu Pro Leu
 65 70 75 80
 Met Ser Phe Arg Ser Asp Ala Trp Phe Cys Arg Trp Phe Glu Leu Glu
 85 90 95
 Trp Leu Pro Gly Ala Ala Leu His Phe Pro Cys Tyr Gln Trp Leu Glu
 100 105 110
 Gly Ala Gly Glu Leu Val Leu Arg Glu Gly Ala Ala Lys Val Ser Trp
 115 120 125
 Gln Asp His His Pro Thr Leu Gln Asp Gln Arg Gln Lys Glu Leu Glu
 130 135 140
 Ser Arg Gln Lys Met Tyr Ser Trp Lys Thr Tyr Ile Glu Gly Trp Pro
 145 150 155 160
 Arg Cys Leu Asp His Glu Thr Val Lys Asp Leu Asp Leu Asn Ile Lys
 165 170 175
 Tyr Ser Ala Met Lys Asn Ala Lys Leu Phe Phe Lys Ala His Ser Ala
 180 185 190
 Tyr Thr Glu Leu Lys Val Lys Gly Leu Leu Asp Arg Thr Gly Leu Trp
 195 200 205
 Arg Ser Leu Arg Glu Met Arg Arg Leu Phe Asn Phe Arg Lys Thr Pro
 210 215 220
 Ala Ala Glu Tyr Val Phe Ala His Trp Gln Glu Asp Ala Phe Phe Ala
 225 230 235 240
 Ser Gln Phe Leu Asn Gly Ile Asn Pro Val Leu Ile Arg Arg Cys His
 245 250 255
 Ser Leu Pro Asn Asn Phe Pro Val Thr Asp Glu Met Val Ala Pro Val
 260 265 270

Leu Gly Pro Gly Thr Ser Leu Gln Ala Glu Leu Glu Lys Gly Ser Leu
 275 280 285

Phe Leu Val Asp His Gly Ile Leu Ser Gly Val His Thr Asn Ile Leu
 290 295 300

Asn Gly Lys Pro Gln Phe Ser Ala Ala Pro Met Thr Leu Leu His Gln
 305 310 315 320

Ser Ser Gly Ser Gly Pro Leu Leu Pro Ile Ala Ile Gln Leu Lys Gln
 325 330 335

Thr Pro Gly Pro Asp Asn Pro Ile Phe Leu Pro Ser Asp Asp Thr Trp
 340 345 350

Asp Trp Leu Leu Ala Lys Thr Trp Val Arg Asn Ser Glu Phe Tyr Ile
 355 360 365

His Glu Ala Val Thr His Leu Leu His Ala His Leu Ile Pro Glu Val
 370 375 380

Phe Ala Leu Ala Thr Leu Arg Gln Leu Pro Arg Cys His Pro Leu Phe
 385 390 395 400

Lys Leu Leu Ile Pro His Ile Arg Tyr Thr Leu His Ile Asn Thr Leu
 405 410 415

Ala Arg Glu Leu Leu Val Ala Pro Gly Lys Leu Ile Asp Lys Ser Thr
 420 425 430

Gly Leu Gly Thr Gly Gly Phe Ser Asp Leu Ile Lys Arg Asn Met Glu
 435 440 445

Gln Leu Asn Tyr Ser Val Leu Cys Leu Pro Glu Asp Ile Arg Ala Arg
 450 455 460

Gly Val Glu Asp Ile Pro Gly Tyr Tyr Tyr Arg Asp Asp Gly Met Gln
 465 470 475 480

Ile Trp Gly Ala Ile Lys Ser Phe Val Ser Glu Ile Val Ser Ile Tyr
 485 490 495

Tyr Pro Ser Asp Thr Ser Val Gln Asp Asp Gln Glu Leu Gln Ala Trp
 500 505 510

Val Arg Glu Ile Phe Ser Glu Gly Phe Leu Gly Arg Glu Ser Ser Gly
 515 520 525

Met Pro Ser Leu Leu Asp Thr Arg Glu Ala Leu Val Gln Tyr Ile Thr
 530 535 540

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Met Val Ile Phe Thr Cys Ser Ala Lys His Ala Ala Val Ser Ser Gly
545 550 555 560

Gln Phe Asp Ser Cys Val Trp Met Pro Asn Leu Pro Pro Thr Met Gln
565 570 575

Leu Pro Pro Pro Thr Ser Lys Gly Gln Ala Arg Pro Glu Ser Phe Ile
580 585 590

Ala Thr Leu Pro Ala Val Asn Ser Ser Ser Tyr His Ile Ile Ala Leu
595 600 605

Trp Leu Leu Ser Ala Glu Pro Gly Asp Gln Arg Pro Leu Gly His Tyr
610 615 620

Pro Asp Glu His Phe Thr Glu Asp Ala Pro Arg Arg Ser Val Ala Ala
625 630 635 640

Phe Gln Arg Lys Leu Ile Gln Ile Ser Lys Gly Ile Arg Glu Arg Asn
645 650 655

Arg Gly Leu Ala Leu Pro Tyr Thr Tyr Leu Asp Pro Pro Leu Ile Glu
660 665 670

Asn Ser Val Ser Ile
675

<210> INFORMATION FOR SEQ ID NO:5:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

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25

<210> INFORMATION FOR SEQ ID NO:6:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 8 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Ala Leu Arg Leu Trp Glu Ile Ile
1 5

<210> INFORMATION FOR SEQ ID NO:7:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 25 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

gggcccga aaataactcctc ctcac

25

<210> INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 8 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Glu Glu Glu Tyr Phe Ser Gly Pro
1 5

<210> INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 22 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

ctacccaagt gatgagtctg tc

22

<210> INFORMATION FOR SEQ ID NO:10:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 23 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

tgttccccctg ggatttagat gga

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